# G. W. LEIBNIZ

# New Essays on Human Understanding

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# CONTENTS

Acknowledgements	<i>page</i> vi
Introduction	vii
Abbreviations	xxxi
Chronology	xxxiii
Further reading	xxxv
Notes on the translation	xxxix
Note on the edition	xliii

# New Essays on Human Understanding

## Preface

Book I Of innate notions

Book III Of ideas
Book III Of words
Book IV Of knowledge

NotesxlvReferencesciiiIndex of namescviIndex of topicscixList of examplescxviii

#### INTRODUCTION

#### The history of the Nouveaux essais

Within five years of the first appearance of Locke's Essay Concerning Human Understanding (1690), Leibniz had read at least some of it, and had written several pages of comments – some appreciative, some mildly critical – upon parts of the work, allowing an intermediary to pass them on to Locke. The latter received them sourly, writing to a friend with a sceptical allusion to Leibniz's 'great name', and concluding that 'even great parts will not master any subject without great thinking, and even the largest minds have but narrow swallows' (Locke to Molyneux, April 1697). The letter containing that remark was published in 1708, and Leibniz later wrote: 'I am not surprised by it: we differed rather too much in principles' (Leibniz to Rémond, March 1714).

Leibniz's interest in Locke's work is abundantly shown by his correspondence in the 1690s, by his re-working the comments mentioned above, and by his writing a fresh set of remarks on Books I and II of the *Essay*, as well as (in 1698) a longer commentary on the controversy which the *Essay* had stirred up between Locke and Stillingfleet, the Bishop of Worcester.

The English language must have been something of a barrier between Leibniz and Locke's long, difficult book. In a letter admitting the imperfections in his French, he wrote: 'I only wish I had the same knowledge of the English language; but not having had the occasion for it, the most I can manage is a tolerable understanding of books written in that language'; and on p. 462 of the present work there is a small but striking indication of his not being at home with English. Still, he did sometimes grapple directly and effectively with Locke's text. Whether he read the entire *Essay* in English, and if so how

<sup>&</sup>lt;sup>1</sup> This, like most of the historical remarks in this section, is backed by references in the Introduction to the Academy edition of the *Nouveaux essais* (see p. xxxviii below), which also supplies full details of references which we give in truncated form.

<sup>&</sup>lt;sup>2</sup> Leibniz to Burnett, 27 July 1696, *LPG* III, p. 181. All dates are given in terms of the Gregorian calendar, though this was not adopted by the German Lutheran states until 1700 and in Britain not until 1752.

thoroughly, we do not know. His own copy of the first edition has about seventy underlinings and marginal marks, and about thirty marginal notes (most now undecipherable), all of these being in Book II, chapters 1–21.

The situation changed in 1700 with the publication of Pierre Coste's French version of the Essay, under the title Essai philosophique concernant l'entendement humain, based primarily on the fourth edition. Nidditch rightly praises this as being, 'almost everywhere, admirably clear, readable, and reliable', though it does contain some mistakes and many minor liberties. Leibniz had known it was coming: in 1606 it was proposed that his critical comments might serve as an introduction to the Coste translation (and though he very properly declined, there was a muddle through which Locke was given to understand that the proposal was Leibniz's own). Leibniz apparently did not seriously start reading Coste until about mid-1703; and about then he also began writing the critical commentary which eventually became the New Essays on Human Understanding. In this, he relied heavily on Coste's version, and probably had little further recourse to the English text. Where Coste diverges from Locke, Leibniz usually follows suit; the only clear exceptions to this are described on pp. xxxviiif below. Even of the passages which Leibniz underlined in his own copy of the English work, two are non-trivially misrepresented in the New Essays: once wholly because of Coste (p. 134 in the present volume), and once a complete reversal of meaning - partly because of him (p. 171).

The writing was done, Leibniz says, hastily and with many interruptions. The first draft was finished in May 1704. Between then and August of that year Leibniz did a good deal of revising, and recast the first two Books into dialogue form (the third and fourth were dialogues from the outset). Linguistic and stylistic changes were also being made: the Academy editors report interventions by eight correctors.

A fair copy, with revisions and corrections by Leibniz and others, was completed at about the time Locke died (November 1704). Leibniz heard the news before the month was out. In January 1705 he solicited further linguistic help from a French writer, and expressed an intention to have the work published; and he was certainly tinkering with it as late as May 1705 (on p. 286 he mentions the recent death of J. Schilter, who died in that month). But he probably did little with it after learning of Locke's death.

Nor is there any evidence that he had intended to re-work it in its philosophical aspects. Locke's death somehow aborted the plan to have the work published, and probably also cut short the process of stylistic improvement; but there is no reason to think that it also inhibited changes which would otherwise have been made to the philosophical content. In that respect, it seems, we have before us a virtually completed work.

It is unique among Leibniz's works in several respects. For the preceding thirty years he had struggled pertinaciously with issues in philosophy, had offered doctrines and arguments in published articles and in voluminous correspondence with some of Europe's leading thinkers. In the course of all this activity (sandwiched in among his duties as a legal and political adviser, historian and librarian) Leibniz often attended to the work of others, but never by taking a complete long book and subjecting it to a scrutiny that was not much shorter. Never, that is, except in the New Essays. The work is special in another way as well. Many of Leibniz's previous engagements with the work of other philosophers - especially Descartes and Spinoza - were part of his effort to define and defend his own philosophical positions. Descartes left behind him a set of problems which Spinoza tried to solve in one way and Leibniz in another. That is how Leibniz himself saw the situation: 'If it were not for the monads', he wrote, 'Spinoza would be right', meaning that only Leibniz's metaphysic could save us from Spinoza's solutions to Descartes's problems. The New Essays, however, is not motivated in this way. Leibniz cannot have seen Locke's Essay as a threat, or as a landmark in terms of which he could usefully locate himself. Rather, he took it as a rich source of doctrines and arguments on which he could use his own philosophy. In this work, Leibniz's doctrines are on display not as themes but as weapons or, not to exaggerate the combativeness of this friendly work, as scalpels.

Why did Locke's death affect Leibniz's plan to publish the work? His earliest extant statement about this is in a letter to Lady Masham in July 1705, where he says that he is discouraged, implying that a main purpose of the *New Essays* was to elicit replies from Locke; and he said similar things to others. There is indeed ample evidence of Leibniz's long-standing desire to engage Locke in philosophical discussion. Still, that may not be the whole explanation. To another correspondent Leibniz wrote that it would be unfair to publish extensive criticism of a man who could no longer defend himself. To yet another he seems – judging from the reply – to have expressed the rather different fear that if he published he would be accused of unfairness or cowardice.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Naudé to Leibniz, 13 October 1706, unpublished. There is a full archival reference in the Academy edition, but it is from Nicholas Jolley that we know of the letter's reassurances about accusations of unfairness or cowardice.

The New Essays did not see the light of day until 1765, when it was published by R. E. Raspe. (Kant's reading of this in about 1769 seems to have given him his first direct knowledge of Leibniz's philosophy, and to have marked an important stage in the development of his own thought.) There have been several subsequent editions, but the only acceptable text is the one published in 1962 by the Akademie-Verlag in Berlin (see p. xxxviii below).

The New Essays has been translated into German and Italian, three times each, and also into Czech, Polish, Hungarian, Russian, Spanish, and Japanese. The only previous English version – by A. C. Langley (New York, 1896) – is highly unsatisfactory. It is fair to say that until the present translation appeared, the work was not accessible to English speakers who could not cope with Leibniz's often quite difficult French.

#### A brief description of the work

The principal defects of the *New Essays* are conspicuous and notorious. Let them be admitted at once. The work is in the form not of 'essays' but of an extended conversation, and Leibniz's handling of the dialogue form is disappointing – especially when compared with Plato, Berkeley, and Hume. Instead of two real people seriously arguing, we have a mechanical spokesman for Locke (Philalethes) who dutifully serves up portions of the *Essay* so that Leibniz's spokesman (Theophilus) can pass judgment on them. Sometimes Philalethes abjectly backs down from Locke's position, but usually he just passes on, without comment, to the next topic; rarely is he allowed an effective reply. The dialogue form does no great harm to the work, but it constitutes a promise which is unfulfilled. This was inevitable: as Leibniz ruefully says in his Preface (p. 48), you cannot have the charms of life-like conversation if one side of it has already been written and published.

If the dialogue form had been fully utilized, there might have been more fairness to Locke. Not that the unfairness is extreme. Leibniz reproduces some things from the *Essay* just because he likes them so much. And some fairness is achieved even at points of conflict: Philalethes does usually present Locke's main arguments on anything on which the two philosophers disagree; and Leibniz's contributions to the disagreements are often thorough and candid enough to exhibit difficulties in his position as well as in Locke's. An example of this is his discussion on pp. 394f of the classification of creatures whose status as human is in doubt. Still, this falls short of letting Philalethes make some effective replies.

It is also a defect in the work that Theophilus tends to ramble, especially in the second half. His digressions are made harder to manage by the fact that the sentences and paragraphs are often, as Leibniz's friends complained, badly constructed. We have tried by conservative means to keep the structure of each passage clear, sometimes re-ordering clauses; but we have not intruded further, e.g. by adding paragraph breaks to the few supplied by Leibniz himself.

The gravest defect is that Leibniz does not try to give a comprehensive understanding of the main outlines of Locke's way of thinking, or of his own. Had he attempted both, the result would have been a synoptic view of one approach to philosophy from the standpoint of another. In the event, we get something less than that. Although he sometimes criticizes Locke on internal grounds of inconsistency, Leibniz does not try to enter into the Lockean manner of thinking. Nor does he properly introduce the reader to his own. His comments on Locke constantly rely on aspects of his own philosophical system - a wide-ranging ontology, theology, logic, and philosophy of mind - which was firmly settled in his mind by the time he wrote the New Essays. This material is frequently mentioned in the work, and sometimes a few details are sketched in; but Leibniz does not try to lay the main outlines of his thought before the reader's eyes. The work is thus less self-contained than one would like. We try to remedy that somewhat, on pp. xiii-xxx below and through explanatory notes at the end; but editorial interventions cannot do much to make up for Leibniz's failure to take the great opportunity he had created for himself.

In assessing these defects, however, and especially the handling of the dialogue form, one should bear in mind that if Leibniz's hopes had been realized the *New Essays* would have been only a prelude to the real debate between Locke and himself.

Anyway, defective or not, the work is coming to stand high in the regard of Leibniz scholars. Nicholas Jolley calls it 'a philosophical classic', says that it is 'in many ways the culmination of a century of vivid and intense philosophical enquiry', and adds that 'No reader of the New Essays can fail to be impressed by its almost continuous philosophical vitality.' Catherine Wilson goes further: 'The New Essays on Human Understanding is undoubtedly Leibniz's best composition: the richest, the most tightly argued, the most fertile in its application to contemporary philosophical problems.' There can indeed be no doubt that the work as it stands is absorbingly interesting and brilliantly illuminating. If it does not systematically confront empiricism by rationalism, it does present a lively clash between

certain aspects of the two traditions. This includes a clash between two kinds of intellectual temperament which have historically tended to be associated with empiricism and rationalism respectively: Locke's inclination to keep theorizing in check by means of common sense, and Leibniz's much stronger preparedness to sacrifice surface plausibility to theoretic strength and unity. On almost every page, the New Essays manifests Leibniz's passion for system, order, definition, rigorous formality, and clarity; and in this respect he is in strong contrast with Locke (and even more so with Philalethes). For a tiny but vivid example - one of hundreds - see the dashing account of 'affinity' on p. 249. For a much larger one, which affects various parts of the work, consider the difference between Locke's attitude and Leibniz's to the question 'What, basically, is there?' Locke speaks of minds and of bodies, but makes no attempt to give them any kind of conceptual unity. And as regards bodies: he says that infinite divisibility is inconceivable, and yet he does not explicitly affirm atomism and explore its consequences. Leibniz, on the other hand, insists that an issue of this kind requires a strong, clear theory, and he has one.

The rambling quality in the work, noted above, has its positive side. The style is the man himself. In the *New Essays* we are given a generous slice of the real Leibniz: busy, friendly, didactic, endlessly curious, full of personal memories and impersonal political plans, in touch with a good proportion of Europe's leading thinkers, and possessed of inexhaustible intellectual energy.

The reader will look in vain for the 'avaricious' and 'unprincipled' Leibniz of some commentators. We do not find that Leibniz anywhere in our material. What emerges from the primary sources is a kindly, honest, candid, and generous man, strongly motivated by a concern for human progress, and pursuing his own self-interest only in the furtherance of the work that enthralled him.

There is a human charm in some of the *idées fixes* which are revealed: for example, the advocacy of state-supported medical research at p. 317 (see also pp. 426f and 454), the doomed, cherished theory about the meanings of vowels and consonants on pp. 282-5, the recurrent interest in the possibility of becoming a good (pp. 185-91) or a bad (p. 511) person through training, the thought of inter-planetary travel (p. 314). Also, as we try to bring out in the Notes at the end, many of Leibniz's glancing references to individuals are connected with significant episodes in his life (e.g. Witsen at p. 103, Pomponne at p. 509); and some of the non-philosophical topics on which he touches – such as horology, librarianship, historiography, mathematics, literary

criticism, church union, political decision-making – reflect some of his own real-life activities.

# Philosophical themes in the New Essays

#### Brute facts

Leibniz was a 'rationalist' at least in thinking that every intelligible 'Why?' question has a true and satisfying answer. He did not, however, maintain that whatever is true is absolutely necessary. For him, the actual world was chosen out of a range of possible worlds, by a personal God whose choice was guided by benevolence but not necessitated by anything; so there are contingent 'truths of fact' as well as necessary 'truths of reason'. Still, there are no reasonless or brute facts. Whenever Locke attributes something to God's arbitrary choice, making it not merely contingent but sheerly brute-factual, Leibniz resists. For example, why does this surface-texture cause that sensation of colour? Locke says that we 'attribute it wholly to the good pleasure of our Maker', and Leibniz replies: 'This good pleasure would indeed be neither good nor pleasure if God's power did not perpetually run parallel to his wisdom' (p. 382), i.e. if God did not always have some reason for arranging things in one way rather than another.

Leibniz seems to hold not merely that God never would make an arbitrary choice but that such a choice is impossible (p. 180). He is profoundly hostile to the idea of such a choice, anyway, because one arbitrary choice would destroy the explanatory-rationalist principle that there is a reason for every fact (p. 179).

Sometimes Leibniz has clearly good grounds for denying that some fact is brute – for example in his wonderful discussion of the 'Molyneux problem', about how felt shapes relate to seen ones (pp. 135–9). But sometimes he is driven to some fairly bold conjectures. For example, he finds a reason for the link between colour sensations and surface textures by conjecturing that the sensations are not 'simple', as Locke takes them to be, but only seem so; really, Leibniz says, they have an inner complexity which makes a colour sensation isomorphic with the surface which causes it (pp. 131f). Leibniz is here relying on his general doctrine – a keystone of his edifice – that many states of one's own mind lie outside one's awareness. Even if that is right, it is a further step to contend for the sort of unnoticed structure that Leibniz postulates in our sensations of colours; but he tries to make that plausible too, in a splendid discussion on pp. 403f, of how 'the swift rotation of a cog-wheel makes us perceive an artificial transparency'.

Leibniz's demand for a reason for everything makes him hostile

to what he calls 'bare faculties' (p. 379). When Locke suggests that God could give matter the power of thought without adding a thinking substance to the matter, Leibniz says that this would be 'a miracle'; it would be giving to the matter a bare power or faculty, not rooted in its nature, and this is contrary to God's wisdom as well as being a speculation which opens the floodgates to 'bad philosophy' (p. 61).

## Necessary truths

When Locke argues that there are necessary truths in morals and politics, Leibniz destroys one of his examples, showing that on one interpretation it is false and on the other vacuous (p. 384). Usually, however, when Locke discusses necessary truths it is to stress their unimportance: he calls some of them 'trifling' and says they 'contain no instruction in them' (p. 428); to others, which he characterizes as 'maxims', he allows some value, though not as foundations of knowledge (p. 415), but blames much intellectual misconduct on them (pp. 417–23). He is severe on those who esteem syllogistic argument (pp. 476–8). Leibniz replies sharply and, in the main, effectively to all of this.

This difference in attitudes to necessary truths and demonstrative reasoning might seem natural between an empiricist and a rationalist, but that contrast is not the whole story. It is also relevant that Locke tends to allow only such mental activities and structures as one is consciously aware of, whereas Leibniz holds that most mental events lie beyond the reach of awareness (aperception) because they are too small or confused or overlaid with more vivid mental content. Because Leibniz holds that something can happen in one's mind without one's being aware of it, he can give necessary truths a role which is not testified to by introspection – Locke's final court of appeal. Locke could not say, as Leibniz does, that necessary truths are the 'inner core and mortar' of all our thinking, relating to it as muscles do to our walking – being essential to it even if we are not consciously aware of the relationship (pp. 83f).

That, however, does not explain why Leibniz was so much more interested in logical organization, struggling to fashion sharp definitions of a number of difficult terms ('capacity', pp. 146f; 'shape', p. 148; 'free', p. 175; 'affinity', p. 249), and stressing the need to reduce one's reliance on unproved axioms and undefined terms (pp. 212, 406-8, 415). Nor does it explain his seeing, as Locke does not, that although the self-identity of the idea *man* generates the truth 'A man is

a man', the non-identity of the ideas man and horse does not entail 'A man is not a horse'; for it is similarly true that the idea triangle is distinct from the idea trilateral, and yet it is false that 'A triangle is not a trilateral' (p. 408). (This simple point destroys Locke's theory about the basis of logical truth, though Leibniz does not say so.) And then there is Leibniz's willingness – not conspicuously shared by Locke – to criticize arguments whose conclusion he accepts: no vacuum, pp. 126 and 151; all action of bodies is by impulse, pp. 130f; existence of external world, pp. 373f; existence of God, pp. 435f.

As those examples suggest, the two philosophers treat logic differently as a result of differences not of doctrine but of temperament, skill, and knowledge. Leibniz loved reasoning for its own sake, was supremely able at logic done in a mathematical manner, and had scholarly knowledge of the history of logic up to his own time. None of those things was true of Locke.

#### Reason and experience

Although Leibniz attached more weight than Locke did to reasoning, he valued the experimental sciences no less than Locke did. In fact the rationalists Descartes, Spinoza, and Leibniz all cared more about the empirical sciences – and two of them had vastly more scientific knowledge – than any British empiricist. Several episodes in the *New Essays* concern problems in physics or neighbouring areas of metaphysics – what it is for something to occupy space (pp. 122–4), the transfer of motion (pp. 171f, 224), how matter hangs together (p. 222), problems in optics (p. 300).

Far from denigrating experience, Leibniz concedes greater powers to it than Locke does. He holds that if you use experimental data not in the blindly trusting manner of the lower animals but under the discipline of reason, you can get results which are not 'necessary' but of which you may be 'certain' (p. 406). He urges the importance of knowing how to use experimental results in theory-building (pp. 371–3, 388f, 416, 453–5); and he sketches a hypothetico-deductive structure in which reason collaborates with experience in confirming general hypotheses (pp. 450, 484).

#### Innate knowledge

Necessary truths are also relevant to the famous disagreement about innate ideas and truths. Locke held that the human mind's only innate endowment is a set of skills or aptitudes – no knowledge or beliefs and

no 'ideas', all of which come from the impact of experience on the mind. In describing the unexperienced mind as a blank page, Locke does himself wrong, suggesting more passivity in the mind than he seriously believed it to have. That same exaggeration occurs in another of his metaphors, which is beautifully amended by Leibniz (pp. 144f).

Usually, Locke does acknowledge that the human mind is innately endowed with capabilities and dispositions. Whether any of those should count as ideas is hardly worth discussing: it depends on what we make of the term 'idea', which will be discussed shortly. There remains the question of innate *knowledge*. The debate about this between Locke and Leibniz, though ultimately not satisfactory, is instructive.

One focus of disagreement concerns learning. Locke implies that if we innately know something then everyone knows it from birth and need never be helped to know it. Leibniz replies: 'I cannot accept . . . that whatever is learned is not innate. The truths about numbers are in us; but still we learn them' (p. 85). He holds that to 'learn' an innately known truth is to uncover what was there all along – to bring a mental possession above the threshold of awareness.

Locke would dismiss this on the grounds that there cannot be mental content of which its owner is unaware. Leibniz says that he is not entitled to that move unless he can 'show that it is of the essence of thought in particular that one be aware of it' (p. 113), to which he adds an argument purporting to show that if Locke were right, all thought would be at a stand-still (p. 118). Be that as it may, Leibniz still has to explain what it is for me to know that P while not being aware of doing so. He says that it is for me to have the knowledge that P in an 'implicit' way (pp. 77, 86) or as a 'tendency or aptitude' (p. 87). Locke implies that this trivializes the doctrine of innate ideas, because it means merely that when I was born I was capable of coming to know that P, which is obviously true for every P which I do eventually come to know. Leibniz has two replies to this (p. 79 to the end of p. 80). The better though less prominent one says that I am born with a capacity eventually to know that P by finding it within my soul, whereas much of my knowledge can be acquired only with the aid of sense-experience. The more conspicuous answer contrasts 'a mere possibility of understanding those truths' with 'a disposition, an aptitude, a preformation, which determines our soul and brings it about that they are derivable from it'. Similarly, Leibniz says, 'the shapes which are arbitrarily given to a stone or piece of marble' may not be 'those which its veins already indicate'. But the veins in a block of marble are a poor metaphor for an active disposition, something between a mere

possibility and an outright actuality; and Leibniz does not ever adequately explain the latter notion.

He thinks, anyway, that we *must* have innate knowledge: what is not innate is learned from experience, and although experience can lead us to believe that P it can never show us that it is absolutely necessary that P. 'It cannot be denied', Leibniz says, 'that the senses are inadequate to show [necessary truths'] necessity, and that therefore the mind has a disposition (as much active as passive) to draw them from its own depths' (p. 80). The link between 'P is necessarily true' and 'P is to be found in the depths of my soul' is not explained.

# 'Idea' and 'image'

Locke uses the term 'idea' broadly. In its basic sense, 'ideas' are images – sensory states, inner depictings and hearings and the like. But he also takes 'ideas' to be abstract thoughts, or contents of such thoughts: he holds that discursive thinking is mentally manipulating 'abstract ideas', which he describes as though they were attenuated images. This double use of 'idea' expresses Locke's tendency to assimilate the sensory side of the human condition to the intellectual.

It is sometimes said that Locke conflates images with concepts; but that is inadequate, because 'concept' is also ambiguous. A concept may be (i) a mental item which occurs when thinking goes on, or a capacity for forming such items; or it may be (ii) an abstract, logical item, neither mental nor physical. It is only when 'concept' is taken in this latter way that it is plausible to say that necessary truths owe their necessity to the nature of the concepts they involve. In short, there are images, intellectual conceivings (and capacities for them) and logical concepts. In using 'idea' for all three, Locke assimilates the sensory to the intellectual and the mental to the logical.

The latter conflation comes to a head in his saying that truths which are known by 'intuition', or looking inward at one's 'ideas', include 'A circle is not a triangle' (p. 361) and 'I feel pleasure and pain' (see p. 434). Leibniz also labels both sorts of truth as 'intuitive', but unlike Locke he does not run them together entirely. Indeed, he sharply separates them into 'truths of reason' and 'truths of fact' (pp. 361, 367), and makes a daring attempt to say, in a single formula, both how they differ and how they are alike (p. 434).

Leibniz often admonishes Locke for conflating 'idea' with 'image'. There is no danger of confusing the *ideas* of a chiliagon and of a figure with one side less, he says, any more than of confusing the numbers

1,000 and 999, though of course the corresponding *images* may be hard to tell apart (pp. 261f, 375). I cannot be in doubt about which sort of figure I am thinking about; I can be in doubt about which sort I am seeing or feeling. Leibniz is here inveighing against the conflation of the sensory with the intellectual, within the sphere of the mental.

As for the conflation of the mental with the logical: a special form of that occurs in Leibniz too. He remarks in passing (pp. 149, 155, 227) that God is the source of necessary truths – not merely the scribe who writes them into our souls but the reality which gives them their truth, as he explains in a remarkable passage about 'that Supreme and Universal Mind . . . whose understanding is indeed the domain of eternal truths' (p. 447). In effect, logic is treated as divine psychology; and we can do logic because of how our minds relate to God's: 'Although his ideas are infinitely more perfect and extensive than ours they still have the same relationships that ours do' (p. 397). Leibniz does not relate this account of modal knowledge to the one which invokes innateness.

Although Leibniz reduces 'truths of reason' to truths about God's 'ideas', and seems to understand these psychologically, we should remember that his God, being atemporal and not subject to any contingency, is rather like an abstract object. This could enable Leibniz's thoughts about necessary truth to share much with the thoughts of those who insist that logic is about abstract objects and not concrete mental particulars. Their metaphors are certainly alike. Leibniz says that God's understanding is 'the domain [région] of eternal truths', that 'the divine understanding is, so to speak, the realm [pays] of possible realities' (Loemker, p. 336), and that 'These essences and the so-called eternal truths about them . . . exist in a certain region [regio, Latin] of ideas, if I may so call it, namely in God himself' (ibid., p. 488). Compare that with Frege's 'third realm' and Wittgenstein's 'logical space'.

As for 'ideas' in relation to human psychology, Leibniz insists that an idea is not 'the *form* of the thought' but rather 'the *object* of thought' – something which does not come into existence with the thought or perish with it (p. 109; see also p. 140). That seems to imply that human ideas are not events in human minds; but Leibniz also insists that ideas are the *inner* objects of thoughts, which seems to give them a psychological status after all. Such a status is clearly presupposed in Leibniz's way of distinguishing our thought from 'our ideas' on p. 119 (see also p. 301).

Leibniz's philosophy evidently contains an unresolved tension between ideas as 'ours' and ideas as 'objects' of our thoughts. However, it does not entangle him in difficulties such as arise from Locke's double conflation.

#### Leibniz's theory of monads

Of the elements in Leibniz's basic philosophical position which are at work all through the *New Essays*, the most important is a cluster of metaphysical views centred on the concept of a monad.

Leibniz holds that the ultimate constituents of reality must be simple, without parts. He rejects atoms, i.e. extended things which cannot be split into parts; so for him everything extended is divisible, and thus no extended thing is a substance or ultimate constituent of reality (pp. 146, 226). Locke was not thus sensitive to the difference between a single substance and a collection of substances, and Leibniz sometimes tries to save him from himself by putting 'substantial entities' into the mouth of his spokesman instead of Locke's 'substances'.

The true substances, according to Leibniz, are monads – sizeless entities of which minds are the only accessible examples. Not every monad is a mind; but the *states* of any monad are just its *perceptions*, in which the states of all the other monads are represented; and minds differ from other monads only in degree, the perceptions of the former being relatively 'distinct' and those of the latter being more 'confused'. Connected with that, Leibniz also holds that minds have awareness or self-consciousness, while other monads do not.

Even a monad with some distinct perceptions also has many confused ones, this being one source of Leibniz's view that we have mental states of which we are not aware. Sometimes, he says, a perception may be too unvarying or too small (too 'minute', in our translation) for its owner to be aware of it, though he may be confusedly aware of a totality of perceptions to which it belongs. Someone who does not consciously hear the sound of any individual drop of water may be aware of the noise of the whole wave breaking on the shore (p. 54). A 'minute' perception is presumably one which is brief and/or lacking in intensity.

Since reality consists of unextended mind-like monads, Leibniz calls the extended physical world a 'phenomenon', meaning that it is real but not ultimate or basic, or that it is grounded in reality but does not show the latter as it really is. He offers the analogy of a rainbow, the perceived colours of which relate to the light-waves and water-droplets in a manner analogous to how the spatial world relates to the realm of unextended monads (pp. 146, 219; see also p. 378).

#### Causal and other relations

Leibniz holds that the world can be completely described in a conjunction of subject-predicate propositions, each naming a monad and attributing to it a state or perception. There are relational truths, but their 'foundation lies in what is the case within each of the individual substances taken alone' (p. 146; see also pp. 216, 227). That leads him to the view that there can be no 'wholly extrinsic denominations' (p. 227), i.e. that no two items could differ only in their spatial relations with other things, that being part of his case against atoms (pp. 230f).

It also implies that there are no causal relations between monads: if there were, they would be reportable only in relational propositions, which would thus be needed to describe the world fully. The orderliness which we observe in the world, Leibniz says, does not exhibit real interactions amongst its constituents; rather, God has brought it about through the 'pre-established harmony' amongst the monads (p. 55). It is a contingent, God-contrived fact that the perceptions of each monad are systematically correlated with those of every other, so that the entire structure of the universe is 'harmonious', even though it is not held together by real forces. (When Leibniz argues that some of our knowledge is possessed independently of sense-experience, he is conforming to 'accepted ways of speaking' according to which causal influence does sometimes occur (p. 74). If he defined 'innate' to mean 'possessed without being caused from outside', using 'caused' strictly, then he would say that all knowledge is innate (p. 440).)

## Mind and body

How can there be causal flow between mind and body? Leibniz says that interaction is impossible, and that the appearance of it comes from a divinely established non-causal parallelism; but unlike others who have taken such a view, he sees it not as an *ad hoc* treatment of the mind-body problem, but rather as an application of a general thesis about all causal interaction between substances (pp. 381f).

It is of great importance to Leibniz to avoid localized, ad hoc solutions. He holds that the world exhibits great richness and variety of effects, explained by a few simple underlying principles; and this picture would be spoiled if a full and fundamental account of reality had to include pockets of specialness (pp. 71f, 324, 473f, 490).

That helps to explain one of his boldest, indeed wildest,